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MONTANA TIMBER PRODUCTION AND MILL RESIDUES, 1976

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SUMMARY

This report shows that Montana roundwood timber production declined from 245,948 thousand cubic feet (6 964.5 thousand cubic meters) in 1969 to 202,362 thousand cubic feet (5 730.3 thousand cubic meters) in 1976. Saw log production decreased from 211,174 thousand cubic feet (5 979.8 thousand cubic meters) in 1969 to 149,636 thousand cubic feet (4 237.2 thousand cubic meters) in 1976. Veneer log output increased to 44,511 thousand cubic feet (1 260.4 thousand cubic meters) as compared to 28,574 thousand cubic feet (809.1 thousand cubic meters) in 1969. The round pulpwood production of 2,380 thousand cubic feet (67.4 thousand cubic meters) was up from the 1,682 thousand cubic feet (47.6 thousand cubic meters) in 1969. Estimated volume of plant residues (including bark) from the lumber, and veneer and plywood industries was 126,744 thousand cubic feet (3 589.0 thousand cubic meters). Of this volume, 87 percent (110,000 thousand cubic feet, 3 114.8 thousand cubic meters) was used.

ACKNOWLEDGMENT

We appreciate the cooperation of the owners and operators of Montana's primary wood-using industries in supplying data for this report.

The data presented in this study are based on the Montana Forest Industries Data Collection System, a cooperative survey performed by the Bureau of Business and Economic Research, University of Montana, Missoula, Montana; funded by various United States Forest Service offices; and coordinated by the Intermountain Forest and Range Experiment Station, Ogden, Utah.

INTRODUCTION

In 1976, production of roundwood timber products in Montana was 202,362 thousand cubic feet (5 730.3 thousand cubic meters) (fig. 1). This represents a decline of 18 percent from the 1969 harvest of 245,948 thousand cubic feet (6 964.5 thousand cubic meters).[1]

Saw logs remained the principal roundwood product from Montana timberlands accounting for about 74 percent of the 1976 total harvest (table 1). The 1976 saw log output of 149,636 thousand cubic feet (4 237.2 thousand cubic meters; 860,415 thousand board feet) was 348,230 thousand board feet below the 1969 saw log harvest--a drop of 29 percent.[2] The decline in saw log output, however, was offset in part by an increase in veneer logs harvested from 28,574 thousand cubic feet (809.1 thousand cubic meters; 168,015 thousand board feet) in 1969 to 44,511 thousand cubic feet (1 260.4 thousand cubic meters; 261,724 thousand board feet) in 1976, with veneer logs now constituting 22 percent of the total output of roundwood products.[3]

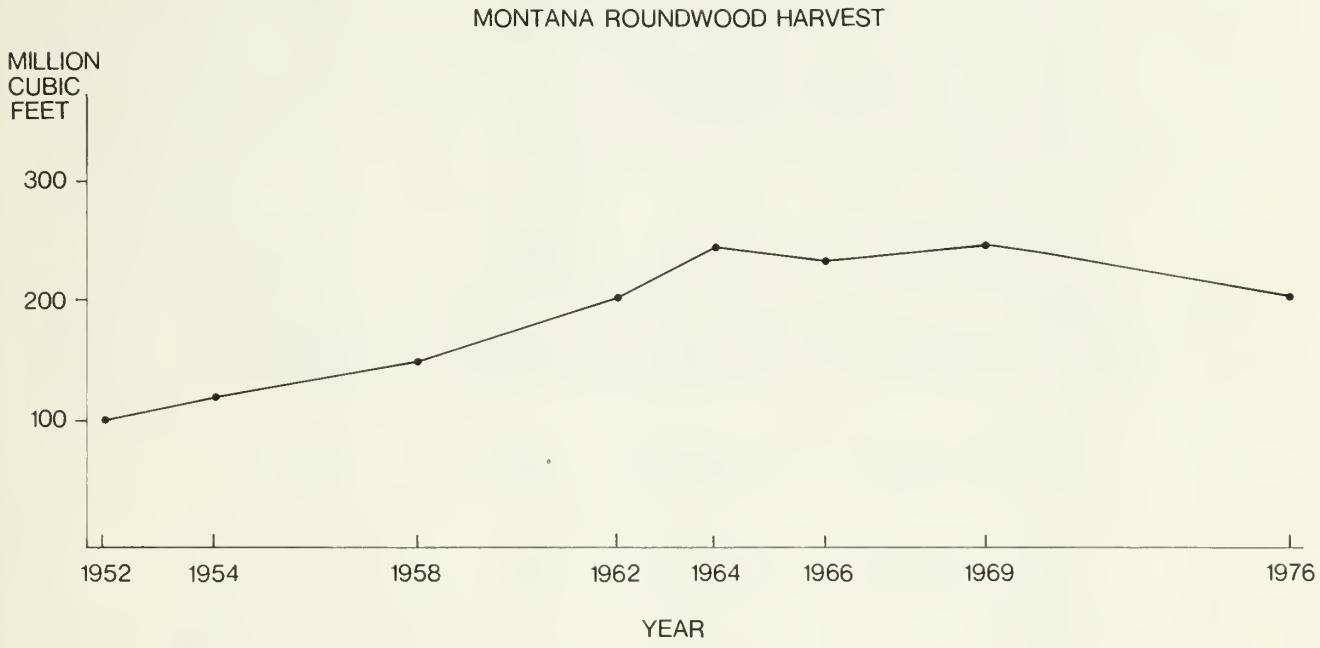

Figure 1.--Roundwood harvest, 1952 through 1976. Plotted volumes through 1969 are from Setzer (1971).

[1]The 1969 figures used in this report are taken from Setzer, Theodore S. 1971. Estimates of timber products output and plant residues, Montana, 1969. USDA For. Serv. Res. Note INT-133, 4 p. Intermt. For. and Range Exp. Stn., Ogden, Utah.

[2]Unless otherwise indicated, Scribner log rule is used throughout this report for board foot volumes of roundwood products.

[3]Logs, bolts, or other round sections cut from trees for industrial or consumer uses. Roundwood products include saw logs, pulpwood, fuelwood, piling, poles, hewn ties, mine timbers, and various other round, split, or hewn products.

Table 1.--*Roundwood products from Montana timberlands by species, 1976*

Product	Species											All species	
	Douglas-fir	Engelmann spruce	Lodgepole pine	Ponderosa pine	True firs[1]	Western larch	Western hemlock	Western redcedar	Western white pine	Other	Unknown	Volume	Percent
	Thousand cubic feet												
Saw logs	39,436	11,546	35,470	22,505	7,816	24,216	991	2,324	4,890	59	383	149,636	73.9
Veneer logs	14,087	3,483	2,027	7,146	2,169	15,523	--	--	--	76	--	44,511	22.0
Pulpwood	2	1	3	--	--	3	27	--	49	2	2,293	2,380	1.2
Miscellaneous industrial wood[2]	22	40	3,186	--	2	11	--	808	23	--	--	4,092	2.0
Posts, poles, fuelwood, miscellaneous farm timbers	52	3	1,563	50	3	56	--	16	--	--	--	1,743	.9
Total	53,599	15,073	42,249	29,701	9,990	39,809	1,018	3,148	4,962	137	2,676	202,362	100.0
Percent of total	26.5	7.4	20.9	14.7	4.9	19.7	.5	1.6	2.4	.1	1.3	100.0	
	Thousand cubic meters												
Saw logs	1 116.7	327.0	1 004.4	637.3	221.3	685.7	28.1	65.8	138.4	1.7	10.8	4 237.2	73.9
Veneer logs	398.9	98.6	57.4	202.4	61.4	439.6	--	--	--	2.1	--	1 260.4	22.0
Pulpwood	.1	([3])	.1	--	--	.1	.7	--	1.4	.1	64.9	67.4	1.2
Miscellaneous industrial wood[2]	.6	1.1	90.2	--	.1	.3	--	22.9	.7	--	--	115.9	2.0
Posts, poles, fuelwood, miscellaneous farm timbers	1.5	.1	44.2	1.4	.1	1.6	--	.5	--	--	--	49.4	.9
Total	1 517.8	426.8	1 196.3	841.1	282.9	1 127.3	28.8	89.2	140.5	3.9	75.7	5 730.3	100.0
Percent of total	26.5	7.4	20.9	14.7	4.9	19.7	.5	1.6	2.4	.1	1.3	100.0	

[1]Includes grand, white, and subalpine firs.
[2]Includes house logs and cedar specialties.
[3]Less than 50 cubic meters.

Round pulpwood output increased from 1,682 thousand cubic feet (47.6 thousand cubic meters) in 1969 to 2,380 thousand cubic feet (67.4 thousand cubic meters) in 1976. Output of all other roundwood products (such as, fuelwood, house logs, cedar specialties, and miscellaneous farm timbers) was 5,835 thousand cubic feet (165.3 thousand cubic meters). Round pulpwood and other products have become a more important component of the harvest, accounting for over 4 percent of the total in 1976 as compared to only about 2.5 percent in 1969. The substantial percent change can be attributed to both the sharp decline in sawtimber harvest since 1969 and a concurrent increase in the harvest of other roundwood products, due primarily to the development of the house log industry in Montana and to increases in round pulpwood harvest.

Over 26 percent of the mill receipts of saw logs from Montana timberlands in 1976 was Douglas-fir (table 2 and 3). Mill receipts of Lodgepole pine amounted to more than 23 percent of the State's total with mill receipts of western larch making up over 16 percent; of ponderosa pine about 15 percent; of Engelmann spruce less than 8 percent; of true firs, western white pine, western redcedar, and western hemlock almost 11 percent; and of other species less than 0.5 percent.

Lincoln County supplied 217,000 thousand board feet of saw logs (25.2 percent of the total output) to lead the State in 1976. The saw log harvest in 1976, however, was less than half the reported harvest of 467,000 thousand board feet for Lincoln County in 1969. Flathead County remained the second leading supplier of saw logs with output of 154,000 thousand board feet or 17.9 percent of the total; this volume is over 60,000 thousand board feet below the 1969 harvest in Flathead County. Sanders County produced 107,741 thousand board feet, or 12.5 percent of the State's total, to become the third ranking county in saw log output, replacing Missoula County and its total harvest of 97,000 thousand board feet.

In 1976, approximately 95 percent of the volume of coarse residues and 83 percent of the fine residues were utilized as compared to about 87 percent of the coarse and 60 percent of the fine residues that were used in 1969 (table 4).[4] Utilization of bark increased from 28 percent in 1969 to over 77 percent in 1976. This rise was due primarily to a greater use of bark as an industrial fuel by wood products manufacturers in Montana.

[4]Mill residue consists of wood materials from manufacturing plants not utilized for the mill's primary product. Such materials include bark, slabs, edgings, trimmings, miscuts, sawdust, and shavings.

Table 2.--*Mill receipts of saw logs from Montana timberlands by species and county of origin, 1976*

County	Species											All species	
	Douglas-fir	Engelmann spruce	Lodgepole pine	Ponderosa pine	True firs[1]	Western larch	Western hemlock	Western redcedar	Western white pine	Other	Unknown	Volume	Percent
	Thousand board feet, International 1/4-inch rule												
Beaverhead	5,739	541	10,268	1,747	112	(2)	0	(2)	0	0	0	18,565	1.9
Big Horn	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Broadwater	1,902	43	2,246	129	0	0	0	0	0	0	0	4,320	.4
Deer Lodge	(2)	0	(2)	0	0	0	0	0	0	0	0	(2)	(2)
Fergus	186	12	0	1,599	0	0	0	0	0	0	0	1,797	.2
Flathead	35,667	23,082	42,828	18,076	8,438	33,377	7	1,441	7,133	7	2,464	172,520	17.9
Gallatin	6,289	4,432	21,028	0	0	0	0	0	0	67	0	31,816	3.3
Glacier	(2)	(2)	(2)	(2)	(2)	(2)	0	(2)	(2)	0	0	(2)	(2)
Granite	6,222	447	3,660	2,611	(2)	2,065	0	0	(2)	0	0	15,343	1.6
Jefferson	5,518	102	7,519	308	0	0	0	0	0	0	0	13,447	1.4
Judith Basin	(2)	0	(2)	(2)	0	0	0	0	0	0	0	(2)	(2)
Lake	8,855	4,095	4,501	4,146	2,335	7,292	0	310	1,635	0	0	33,169	3.4
Lewis and Clark	10,201	492	6,240	6,362	243	921	0	0	27	0	0	24,486	2.5
Lincoln	43,264	17,599	48,401	37,564	20,444	50,320	5,570	9,119	10,539	300	0	243,120	25.2
Madison	922	59	1,559	0	0	0	0	0	0	0	0	2,540	.3
Meagher	8,299	(2)	9,782	(2)	0	0	0	0	0	0	0	18,506	1.9
Mineral	10,928	4,234	3,796	11,240	4,458	8,120	564	978	3,605	1	0	47,924	5.0
Missoula	34,213	9,228	12,912	20,283	5,839	23,150	0	335	2,601	0	0	108,561	11.3
Park	11,008	1,407	8,649	0	0	0	0	0	0	0	0	21,064	2.2
Powder River	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Powell	12,055	1,656	14,074	4,367	889	4,005	0	0	60	0	0	37,106	3.9
Ravalli	12,916	782	6,810	9,416	491	393	0	(2)	(2)	0	0	31,345	3.3
Rosebud	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Sanders	35,066	5,298	14,659	25,801	6,754	25,254	246	2,093	5,495	4	0	120,670	12.5
Silver Bow	1,552	196	4,940	0	0	0	0	0	0	0	0	6,688	.7
Total	253,970	74,357	228,427	144,935	50,333	155,954	6,387	14,969	31,490	379	2,464	963,665	100.0
Percent of total	26.4	7.7	23.7	15.0	5.2	16.2	.7	1.5	3.3	(3)	(3)	100.0	

[1]Includes grand, white, and subalpine firs.
[2]Data withheld to prevent disclosure of information about individual firms.
[3]Less than 0.05 percent.

Table 3.--*Mill receipts of saw logs from Montana timberlands by species and county of origin, 1976*

County	Species											All species	
	Douglas-fir	Engelmann spruce	Lodgepole pine	Ponderosa pine	True firs[1]	Western larch	Western hemlock	Western redcedar	Western white pine	Other	Unknown	Volume	Percent
	Thousand board feet, Scribner												
Beaverhead	5,124	483	9,168	1,560	100	(2)	0	(2)	0	0	0	16,576	1.9
Big Horn	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Broadwater	1,698	38	2,005	115	0	0	0	0	0	0	0	3,856	.4
Deer Lodge	(2)	0	(2)	0	0	0	0	0	0	0	0	(2)	(2)
Fergus	166	11	0	1,428	0	0	0	0	0	0	0	1,605	.2
Flathead	31,846	20,609	38,239	16,139	7,534	29,801	6	1,287	6,369	6	2,200	154,036	17.9
Gallatin	5,615	3,957	18,773	0	0	0	0	0	0	60	0	28,405	3.3
Glacier	(2)	(2)	(2)	(2)	(2)	(2)	0	(2)	(2)	0	0	(2)	(2)
Granite	5,555	399	3,268	2,331	(2)	1,844	0	0	(2)	0	0	13,699	1.6
Jefferson	4,927	91	6,713	275	0	0	0	0	0	0	0	12,006	1.4
Judith Basin	(2)	0	(2)	(2)	0	0	0	0	0	0	0	(2)	(2)
Lake	7,906	3,656	4,019	3,702	2,085	6,511	0	277	1,460	0	0	29,616	3.4
Lewis and Clark	9,108	439	5,571	5,680	217	822	0	0	24	0	0	21,861	2.5
Lincoln	38,629	15,713	43,215	33,539	18,254	44,929	4,973	8,142	9,410	268	0	217,072	25.2
Madison	823	53	1,392	0	0	0	0	0	0	0	0	2,268	.3
Meagher	7,410	(2)	8,734	(2)	0	0	0	0	0	0	0	16,523	1.9
Mineral	9,757	3,780	3,389	10,036	3,980	7,250	504	873	3,219	1	0	42,789	5.0
Missoula	30,547	8,239	11,529	18,110	5,213	20,670	0	299	2,322	0	0	96,929	11.3
Park	9,830	1,256	7,722	0	0	0	0	0	0	0	0	18,808	2.2
Powder River	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Powell	10,763	1,479	12,566	3,899	794	3,576	0	0	54	0	0	33,131	3.9
Ravalli	11,532	698	6,080	8,407	438	351	0	(2)	(2)	0	0	27,987	3.3
Rosebud	0	0	0	(2)	0	0	0	0	0	0	0	(2)	(2)
Sanders	31,309	4,730	13,088	23,037	6,030	22,548	220	1,869	4,906	4	0	107,741	12.5
Silver Bow	1,386	175	4,411	0	0	0	0	0	0	0	0	5,972	.7
Total	226,758	66,390	203,953	129,406	44,940	139,245	5,703	13,365	28,116	339	2,200	860,415	100.0
Percent of total	26.4	7.7	23.7	15.0	5.2	16.2	.7	1.5	3.3	(3)	(3)	100.0	

[1]Includes grand, white, and subalpine firs.
[2]Data withheld to prevent disclosure of information about individual firms.
[3]Less than 0.05 percent.

Table 4.--*Estimated volume of used and unused plant residues from the lumber and veneer and plywood industries in Montana, 1976*

Year	Bark			Coarse[1]			Fine[2]		
	Used	Unused	Total	Used	Unused	Total	Used	Unused	Total
	Thousand cubic feet								
1969	10,552	27,361	37,913	53,075	8,227	61,302	34,152	22,863	57,015
1976	24,764	7,199	31,963	50,666	2,464	53,130	34,570	7,081	41,651
	Thousand cubic meters								
1969	298.8	774.8	1 073.6	1 502.9	233.0	1 735.9	967.1	647.4	1 614.5
1976	701.2	203.9	905.1	1 434.7	69.8	1 504.5	978.9	200.5	1 179.4

[1]Material suitable for chipping; such as slabs, edgings, and trimmings.
[2]Material such as sawdust and shavings.

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KEYWORDS: primary wood products, sawtimber, pulpwood, sawmill residues use.

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The Intermountain Station, headquartered in Ogden, Utah, is one of eight regional experiment stations charged with providing scientific knowledge to help resource managers meet human needs and protect forest and range ecosystems.

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